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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Attorney Docket No.: 1101.112US02

Ellingsrud et al.

Confirmation No.: 1254

Application No.: 10/801,045

Examiner: Unknown

Filed: March 15, 2004

Group Art Unit: 3672

For: ELECTROMAGNETIC METHOD AND APPARATUS FOR DETERMINING THE  
NATURE OF SUBTERRANEAN RESERVOIRS USING REFRACTED  
ELECTROMAGNETIC WAVES

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form PTO-1449. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

Copies of the references were cited by or submitted to the Office in Patent Application No. 10/214,471, filed August 7, 2002, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these references are not attached. 37 C.F.R. § 1.98(d).

Respectfully submitted,

Curtis B. Herbert, Ph.D., Esq.  
Registration No. 45,443

Application No. 10/801,045

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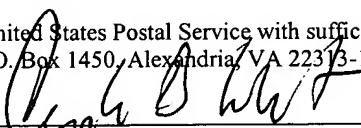
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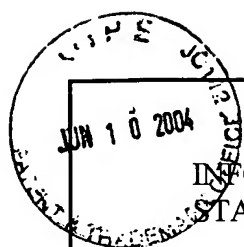
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Curtis B. Herbert, Ph.D., Esq.



Substitute for form 1449/PTO

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number	10/801,045
Filing Date	March 15, 2004
First Named Inventor	Ellingsrud et al.
Art Unit	3672
Examiner Name	Unknown
Attorney Docket Number	1101.112US02

Sheet	1	of	5
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number-Kind Code <sup>2</sup> (if known)		
		US-6,339,333	01/2002	Kuo
		US-6,246,240	06/2001	Vail III
		US-6,225,806	05/2001	Millar et al.
		US-6,188,222	02/2001	Seydoux et al.
		US-6,188,221	02/2001	Van de Kop et al.
		US-6,184,685	02/2001	Paulk et al.
		US-6,181,138	01/2001	Hagiwara et al.
		US-6,163,155	12/2000	Bittar
		US-6,157,195	12/2000	Vail, III
		US-6,060,885	05/2000	Tabarovsky et al.
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		US-6,002,357	12/1999	Redfern et al.
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		US-5,892,361	04/1999	Meyer, Jr. et al.
		US-5,886,526	03/1999	Wu
		US-5,877,995	03/1999	Thompson et al.
		US-5,841,280	11/1998	Yu et al.
		US-5,811,973	09/1998	Meyer, Jr.
		US-5,767,679	06/1998	Schroder

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)			
		EP 0087271	08/1983		
		EP 0219234	04/1987		
		EP 0512756	11/1991		
		EP 0814349	12/1997		
		FR 2479992	10/1981		
		GB 2155182	09/1985		

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				<i>Complete if Known</i>	
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				Filing Date	March 15, 2004
				First Named Inventor	Ellingsrud et al.
				Art Unit	3672
				Examiner Name	Unknown
Sheet	2	of	5	Attorney Docket Number	1101.112US02
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		Number-Kind Code <sup>2</sup> (if known)			
		US-5,689,068	11/1997	Locatelli et al.	
		US-5,563,513	10/1996	Tasei et al.	
		US-H1561	07/1996	Thompson	
		US-H1524	04/1996	Thompson et al.	
		US-5,486,764	01/1996	Thompson et al.	
		US-H1490	09/1995	Thompson et al.	
		US-5,400,030	03/1995	Duren et al.	
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		US-5,280,284	01/1994	Johler	
		US-5,192,952	03/1993	Johler	
		US-5,177,445	01/1993	Cross	
		US-5,025,218	06/1991	Ramstedt	
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		US-4,760,340	07/1988	Denzau et al.	
		US-4,652,829	03/1987	Safinya	
		US-4,633,182	12/1986	Dzwinel	
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		US-4,616,184	10/1986	Lee et al.	
		US-4,594,551	06/1986	Cox et al.	
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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)			
		GB 2256715	12/1992		
		GB 2301902	12/1996		
		WO 81/01617	06/1981		
		WO 96/06367	02/1996		
		WO 98/28638	07/1998		
		WO 00/00850	01/2000		
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		Number-Kind Code <sup>2</sup> (if known)			
		US-4,547,733	10/1985	Thoraval	
		US-4,506,225	03/1985	Loveless et al.	
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		US-4,047,098	09/1977	Duroux	
		US-4,010,413	03/1977	Daniel	
		US-3,806,795	04/1974	Morey	
		US-3,052,836	09/1962	Postma	
		US-2,531,088	11/1950	Thompson	
		US-2,077,707	04/1937	Melton	
		US-			
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		WO 00/13037	03/2000		
		WO 00/13046	03/2000		
		WO 00/63718	10/2000		
		WO 01/55749	08/2001		
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<p><small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small></p> <p><small><sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at <a href="http://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.</small></p> <p><small>This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.</small></p>					

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				Examiner Name	Unknown
Sheet	4	of	5	Attorney Docket Number	1101.112US02

### NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIAL*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
		Ellingsrud et al., <i>"How Electromagnetic Sounding Technique Could be Coming to Hydrocarbon E &amp; P"</i> , 20 First Break (March 2002).	
		Eidesmo et al., <i>"Sea Bed Logging (SBL), a new method for remote and direct identification of hydrocarbon filled layers in deepwater areas"</i> , 20 First Break (March 2002).	
		Kaufman et al., <i>"EM Field of an Electric Dipole on the Surface of a Medium Containing a Thin Resistant Layer"</i> , Frequency and Transient Soundings, publ. Elsevier, (1983).	
		Kaufman et al., <i>1981 Annual Meeting Abstracts: Marine EM Prospecting System</i> , 47 Geophysics 431 (1982).	
		Garg et al., <i>"Synthetic Electric Sounding Surveys Over Known Oil Fields"</i> , 49 Geophysics 1959-67 (November 1984).	
		Yuan et al., <i>"The Assessment of Marine Gas Hydrates Through Electrical Remote Sounding: Hydrate Without a BSR?"</i> , 27 Geophys. Res. Letts. 204-217 (August 15, 2000).	
		Edwards, <i>"On the Resource evaluation of Marine Gas Hydrate Deposits Using Sea-Floor Transient Electric Dipole-Dipole Methods"</i> , 62 Geophysics 63-74 (January 1997).	
		Chave et al., <i>"Some Comments on Seabed Propagation of ULF/ELF Electromagnetic Fields"</i> , 25 Radio Science 825-36 (September 1990).	
		MacGregor et al., <i>"Use of Marine Controlled-Source Electromagnetic Sounding for Sub-Basalt Exploration"</i> , 48 Geophys. Prosp. 1091-1106 (April 2000).	
		MacGregor et al., <i>"Marine Controlled Source Electromagnetic Sounding: Development of a Regularized Inversion for 2-Dimensional Resistivity Structures"</i> , 1 LITHOS Science Report 103-109 (April 1999).	
		MacGregor et al., <i>"The RAMESSES Experiment - III. Controlled-Source Electromagnetic Sounding of the Reykjanes Ridge"</i> , 135 Geophys. J. Int. 773-89 (July 1998).	

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NON PATENT LITERATURE DOCUMENTS					
EXAMINER INITIAL*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T <sup>2</sup>
		Sinah et al., "Magmatic Processes at Slow Spreading Ridges: Implications of the RAMESSES Experiment at 57 deg. 45'N on the Mid-Atlantic Ridge," 135 Geophys. J. Int. 731-45 (July 1998).			
		Sinah et al., "Evidence for Accumulated Melt Beneath the Slow-Spreading Mid-Atlantic Ridge," 355 Phil. Trans. R. Soc. Lond. A 233-53 (January 1997).			
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